

## ABSTRACT

An SDH ring network is disclosed, which comprises a transmission & reception node; and a PCA insertion & reception node, which are interconnected in a ring form.

5 The transmission & reception node includes a first function portion for setting a working path and a protection path in advance, a second function portion for setting a transmission value into the K3 or K4 byte in the overhead part of an SDH signal independently on the working path  
10 and the protection path, and a path switch for selecting either the working path or the protection path depending on the state of the received K3 or K4 byte, and the PCA insertion & reception node includes an insertion switch for selecting either a received signal is to be passed  
15 through or a PCA (Protection Channel Access) signal is to be inserted thereto, and a bridge for dropping a received signal and at the same time passing through the received signal.